

REMARKS

A sequence listing is already of record in this case. The foregoing amendments have added the sequence listing numbers to the appropriate portions of the specification. Accordingly, withdrawal of the objection to the specification is respectfully solicited.

Claim 1 has been amended by deleting the recitation that the oligopeptide has two arginine residues and substituting a recitation that the oligopeptide comprises the sequence ProArgGlyArg. It will be appreciated that this sequence is common to all of these species set forth in SEQ ID Nos. 1-13. While requiring this sequence to be present, no limitation has been placed on the remaining residues in this claim. In some species, there is also a ProGly sequence (where the Pro may or may not be a part of the ProArgGlyArg sequence) and a dependent claim has been added directed thereto. Claims 2-4 have been amended to specify the oligopeptide by the SEQ ID No. The oligopeptides have dental caries protective properties and the preamble of claim 1 has been amended to so state.

To avoid the composition claims from being read as possibly duplicating the oligopeptide claims, the composition claims have been amended to recite the presence of a carrier. The basis for the new claims reciting the identity of the carrier can be original claim 7. Basis for the single dosage amounts can be found on page 10, lines 13-14.

The Examiner's indication that an oligopeptide consisting of the amino acid sequence selected from SEQ ID Nos. 1-13 is free of the prior art has been noted with appreciation. The Examiner will recognize that claims 2, 3 and 4 effectively corresponded to such a claim. Applicants also appreciate the Examiner's indication that a method of treating dental care using such oligopeptides would be allowable.

It is respectfully submitted that the claim rejections under 35 USC § 112 can be withdrawn in light of the foregoing amendments.

As a result of the amendment to claim 1, it is respectfully submitted that this claim is not vague or indefinite. The claim specifies an oligopeptide having dental caries protective properties which is selected from pentapeptide through decapeptide and contains the sequence ProArgGlyArg. The other members of the peptide can vary, as demonstrated by the species set forth in SEQ ID Nos. 1-13. Claims 2-4 have been amended to specify that the oligopeptide is particular species and the dependency of claims 3 and 4 have been changed to avoid the indefiniteness noted by the Examiner when they were dependent on claim 2.

With respect to the claims 5-17, the application at the top of page 4 indicates that the oligopeptides are used to protect dental surfaces against caries and the middle paragraph indicates that the peptides are transformed into ammonia which raises the pH of the dental surface and thereby protects the surface against those caries. On page 9, it is indicated that the compositions are useful for preventing dental caries and a similar description is given on page 10. It is thus clear that the prevention-effective amount is a dental caries prevention-effective amount and the claims have been amended to so state.

The objection to claim 7 is respectfully submitted to be moot in light of the amendment to claim 6.

Claims 8 and 15-17 were European style method of use claims. They are thus duplicates of the method of use claims pending in this application and have been cancelled.

It is respectfully submitted that the rejection of claim 1 under 35 USC § 112, first paragraph, based on scope of enablement (Office Action paragraph 5) and written description (Office Action paragraph 7) has been rendered moot as a result of the amendment to claim 1 to specify that the oligopeptide is characterized by containing the ProArgGlyArg sequence.

The rejection of claims 1-17 under 35 USC § 112, first paragraph, in Office Action paragraph 6 is respectfully traversed. Based on the text of this rejection, it is believed that this rejection is being applied to claims 5-17 rather than claims 1-17.

The Office Action states that the specification fails to provide evidence that any of the peptides can protect or prevent dental caries but most likely could be used to treat dental caries and suggests that the claims be limited to treatment methods. It is respectfully pointed out that, as noted earlier, the application specifically states that these peptides are caries protecting. Since the specification is presumptively correct, there is no requirement for the specification to provide "evidence" of such protection. In addition, as the Office Action points out, these peptides are transformed into ammonia by oral bacteria, which raises the pH at the dental surface and thereby protects the surface against caries. It is apparent that if some degree of caries is already present, the pH change will protect the surface against further dental caries erosion. It is therefore respectfully submitted that the "prevention" terminology is correct.

It is respectfully submitted that the rejection of claims 1 and 5-8 under 35 USC § 102 as anticipated by Shafer can be withdrawn. While Shafer may teach a variety of oligopeptides, there is no teaching or suggestion of an oligopeptide containing the sequence ProArgGlyArg. There is also no teaching or suggestion that an oligopeptide, without regard to the number of amino acid residues or their sequence, will have dental caries preventive properties.

In light of all of the foregoing, it is respectfully submitted that this application is now in condition to be allowed and the early issuance of a Notice of Allowance is respectfully requested.

Dated: August 19, 2004

Respectfully submitted,

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